

REMARKS

Claims 1-30 are pending and are rejected. Reconsideration and allowance of Claims 1-30 are respectfully requested.

Claim Rejections under 35 USC §103 over Pereira and Kaganoi

Claims 1-4, 6-9, 11-13, 16-17, 19-20, and 22-30 are rejected under 35 USC §103(a) as being unpatentable over Pereira (USP 6,324,087) in view of Kaganoi (USP 7,095,742). Applicant respectfully traverses these rejections.

Independent Claim 1

Applicant's Claim 1 recites:

A content addressable memory (CAM) device for comparing a search key to data values stored therein, comprising:

a plurality of CAM blocks, each including an array of CAM cells to store a predetermined range of data values;

means for extracting a selected portion of the search key in response to a select signal; and

means for selectively enabling each CAM block in response to a comparison between the selected portion of the search key and the predetermined range of data values for the corresponding CAM block.

The Office Action acknowledges that Pereira "fails to teach means for extracting a selected portion of the search key in response to a select signal," and asserts that "Kaganoi teaches means for extracting a selected portion of the search key in response to a select signal." Applicant disagrees.

In contrast to the Office Action's assertion, Kaganoi fails to disclose or suggest a "means for extracting a selected portion of the search key in response to a select signal," as recited in Applicant's Claim 1. Instead, the search key extracting circuit 12 of Kaganoi's packet processing circuit 10 simply extracts a predetermined search key from an incoming packet; it does not extract a selected portion of the search key in response to a select signal. Thus, referring to Kaganoi's Fig. 1, Kaganoi's search key

extracting circuit 12 does not receive a select signal and thus is not responsive to a select signal. Indeed, the portion of Kaganoi cited by the Office Action in support of the rejection of Claim 1 states that the “search key extracting means extracts a predetermined search key from the above-mentioned cells received from the above-mentioned packet receiving means” (col. 2, lines 16-19).

Therefore, in contrast to the Office Action’s assertion, there is no language in Kaganoi that discloses or suggests a “means for extracting a selected portion of the search key in response to a select signal,” as recited in Applicant’s Claim 1. Accordingly, Applicant’s Claim 1 is patentable over Pereira or Kaganoi, whether taken individually or in combination.

Claims 2-11 depend from Claim 1 and therefore distinguish over the cited references for at least the same reasons as Claim 1.

Independent Claim 12

Applicant’s Claim 12 recites:

A content addressable memory (CAM) device for comparing a search key to data stored therein, comprising:

a plurality of CAM blocks, each including an array of CAM cells to store a predetermined range of data values;

a parsing circuit having an input to receive the search key and having an output to provide a selected portion of the search key in response to a select signal; and

a plurality of block select circuits, each configured to enable a corresponding CAM block if the selected portion of the search key falls within the predetermined range of data values for the corresponding CAM block.

As discussed above with respect to Claim 1, neither Pereira nor Kaganoi, whether taken individually or in combination, discloses or suggests a “means for extracting a selected portion of the search key in response to a select signal,” and therefore also fails to disclose or suggest “a parsing circuit having an input to receive the search key and having an output to provide a selected portion of the search key in response to a select signal,” as recited in Applicant’s Claim 12. Accordingly,

Applicant's Claim 12 is patentable over the cited references.

Claims 13-23 depend from Claim 12 and therefore distinguish over the cited references for at least the same reasons as Claim 12.

Independent Claim 24

Applicant's Claim 24 recites:

A method of operating a content addressable memory (CAM) device including a plurality of CAM blocks each for storing a predetermined range of data values to be compared with a search key, comprising:

extracting a selected portion of the search key in response to a select signal;
and

for each CAM block,

determining whether the selected portion of the search key falls within the predetermined range of data values stored in the CAM block; and
selectively enabling the CAM block in response to the determining.

As discussed above with respect to Claim 1, neither Pereira nor Kaganoi, whether taken individually or in combination, discloses or suggests "extracting a selected portion of a search key in response to a select signal," and therefore also fails to disclose or suggest "extracting a selected portion of the search key in response to a select signal," as recited in Applicant's Claim 24. Accordingly, Applicant's Claim 24 is patentable over the cited references.

Claims 25-28 depend from Claim 24 and therefore distinguish over the cited references for at least the same reasons as Claim 24.

Independent Claim 29

Applicant's Claim 29, as amended, recites:

A method of selectively enabling a plurality of CAM blocks each for storing a predetermined range of data values, comprising:

extracting a selected portion of a search key in response to a select signal;

for each CAM block, determining whether the selected portion of the search key

falls within the predetermined range of data values for the corresponding CAM block;
and

generating a plurality of block enable signals in response to the determining.

As discussed above with respect to Claim 1, neither Pereira nor Kaganoi, whether taken individually or in combination, discloses or suggests “extracting a selected portion of a search key in response to a select signal,” and therefore also fails to disclose or suggest “extracting a selected portion of the search key in response to a select signal,” as recited in Applicant’s Claim 29. Accordingly, Applicant’s Claim 29 is patentable over the cited references.

Claim 30 depends from Claim 29 and therefore distinguishes over the cited references for at least the same reasons as Claim 29.

Claim Rejections under 35 USC §103 in view of Stark

Claims 5, 14-15, and 21 are rejected under 35 USC §103(a) as being unpatentable over Pereira in view of Kaganoi and further in view of Stark (USP 6,633,953). Applicant respectfully traverses these rejections.

Claim 5 depends from independent Claim 1, and therefore distinguishes over the cited references for at least the same reasons as Claim 1.

Claims 14-15 and 21 depend from independent Claim 12, and therefore distinguish over the cited references for at least the same reasons as Claim 12.

Claim Rejections under 35 USC §103 in view of King

Claims 10 and 18 are rejected under 35 USC §103(a) as being unpatentable over Pereira in view of Kaganoi and further in view of King (USP 7,003,625). Applicant respectfully traverses these rejections.


Claim 10 depends from independent Claim 1, and therefore distinguishes over the cited references for at least the same reasons as Claim 1.

Claim 18 depends from independent Claim 12, and therefore distinguishes over the cited references for at least the same reasons as Claim 12.

CONCLUSION

In light of the above remarks, it is believed that Claims 1-30 are in condition for allowance and, therefore, a Notice of Allowance of 1-30 is respectfully requested. If the Examiner's next action is other than allowance as requested, the Examiner is requested to call the undersigned at (408) 236-6646.

Respectfully submitted,



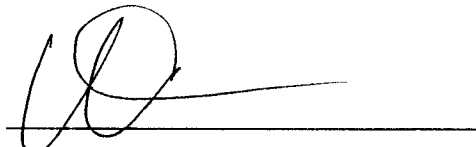
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I hereby certify that this correspondence is being transmitted via facsimile to the Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450 via facsimile number 703-273-8300 on December 4, 2006.

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